ABSTRACT

Processing of plethysmographic signals via the cepstral domain is provided. In one embodiment, a cepstral domain plethysmographic signal processing method (200) includes the steps of obtaining (210) time domain plethysmographic signals, smoothing
5   (220) the time domain plethysmographic signals, performing (230) a first-stage Fourier transformation of the time domain plethysmographic signals to frequency domain plethysmographic signals, computing (240) power spectrums from the frequency domain plethysmographic signals, scaling (250) the power spectrums with a logarithmic function, performing (260) a second-stage Fourier transformation on log-scaled spectrums to
10   transform the power spectrums into cepstrums, and examining (270) the cepstrums to obtain information therefrom relating to a physiological condition of the patient such as the patient's pulse rate or SPO2 level.